



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,230	03/28/2002	Monika Bauer	37637-0008	1738
26633	7590	03/08/2004		
HELLER EHRMAN WHITE & MCAULIFFE LLP 1666 K STREET,NW SUITE 300 WASHINGTON, DC 20006			EXAMINER VARGOT, MATHIEU D	
			ART UNIT	PAPER NUMBER
			1732	

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,230

Applicant(s)

BAUER ET AL.

Examiner

Mathieu D. Vargot

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-67 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 25-67 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/28 & 8/27/02</u> . | 6) <input type="checkbox"/> Other: ____. |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 25, 27, 41, 45, 52 and 54 are rejected under 35 U.S.C. 102(b) as being anticipated by Bauer -159.

The applied reference discloses the instant optical system with substrate and optical element applied thereto, the substrate comprising a thermosetting plastic made from the instant polycyanurate resin. See col. 1, lines 11-18, which discloses that the polymer would be used as a "substrate material for optical coatings" and for the "generation of waveguide structures", such encompassing coating the desired optical layers on the substrate to make a waveguide. Glass transition temperatures are disclosed at column 3, lines 58-63. Concerning the casting method to make the substrate, Example 2 refers to a casting and column 4, lines 22-23 disclose processing from meltings by means of stamping or molding techniques, the latter clearly requiring a mold into which the material would be cast.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28-30 and 55-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer -159.

Bauer -159 discloses the basic claimed optical system and substrate as set forth in paragraph 1, supra, the applied reference essentially lacking the aspects that the glass transition temperature of the thermoset is necessarily "not less than..." the recited temperatures. However, the disclosure of 180-250 degrees C as the glass transition temperature in the applied reference would have rendered the instant minimum temperatures as clearly obvious thereover dependent on the exact heat duty expected for the substrate.

3. Claims 26, 31-40, 46-51, 53 and 58-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer -159 in view of PCT Publication WO 96/17020 (see passage bridging pages 14-15).

Bauer -159 discloses the basic claimed invention lacking essentially the inclusion of epoxies, thermoplastics and conductive fillers into the thermosetting plastic. PCT -020 discloses the incorporation of these materials into a cyanate resin as strength and property altering fillers and one of ordinary skill in the art would have found their incorporation into the resin of Bauer -159 as obvious for these reasons dependent on the exact heat history expected and strength characteristics desired for the substrate. To place the fillers in certain portions of the substrate only would further have been obvious if these characteristics were to be desired only in local areas of the substrate.

Art Unit: 1732

Note that it is fairly conventional in the art to incorporate fillers in a selective manner by loading only certain areas of a mold with them prior to casting the material which makes up the article as set forth in instant claims 38, 49 and 51.

4. Claims 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer –159 in view of Burack et al (see column 1, lines 58-59).

Bauer –159 discloses the basic claimed invention lacking essentially that the optical element itself is made from a polycyanate resin. Burack et al teaches that a waveguide is made by casting such a material as set forth in instant claims 42-44 onto a substrate. It would have been obvious to one of ordinary skill in the art to have modified the optical system of the primary reference as taught by Burack et al to make a waveguide with high temperature and environmental stability.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mathieu D. Vargot whose telephone number is 571 272-1211. The examiner can normally be reached on Mon-Fri from 9 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni, can be reached on 571 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 10/019,230

Page 5


Art Unit: 1732

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

M. Vargot
March 4, 2004


Mathieu D. Vargot
Primary Examiner
Art Unit 1732

3/4/04